# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

INVENTOR: Marc ALAIA et al.

GROUP ART UNIT: Unassigned

SERIAL NO.: Unassigned

**EXAMINER:** Unassigned

FILING DATE: April 11, 2001

TITLE: METHOD AND SYSTEM FOR DYNAMICALLY CONTROLLING OVERTIME IN ELECTRONIC AUCTIONS (As Amended)

ASSISTANT COMMISSIONER FOR PATENTS Washington, DC 20231

Sir:

# PRELIMINARY AMENDMENT IN CONTINUATION APPLICATION

Prior to the examination of the above-identified continuation application on the merits, please amend the application as follows:

### IN THE TITLE

Please amend the title of the invention to read: "METHOD AND SYSTEM FOR DYNAMICALLY CONTROLLING OVERTIME IN ELECTRONIC AUCTIONS".

#### IN THE CLAIMS

Please cancel claims 1-88.

Please add claims 89-127 as follows:

89. A method of controlling closing times in an electronic auction, comprising:
setting a first closing time for a first lot and second closing time for a second lot;
extending said first closing time;

determining whether to extend said second closing time based on said extended first closing time; and

extending said second closing time in accordance with said determination.

90. The method of claim 89, wherein said extending said first closing time comprises:

determining whether an overtime trigger condition occurs prior to said first closing time;
and

adding a first overtime interval to said first closing time.

91. The method of claim 89, further comprising:
setting a third closing time for a third lot;
determining whether to extend said third closing time based on said extended second closing time; and

extending said third closing time in accordance with said determination.

92. A machine-readable medium whose contents cause a computer system to control closing times in an electronic auction, comprising:

setting a first closing time for a first lot and second closing time for a second lot; extending said first closing time;

determining whether to extend said second closing time based on said extended first closing time; and

extending said second closing time in accordance with said determination.

93. The machine-readable medium of claim 92, wherein said extending said first closing time comprises:

determining whether an overtime trigger condition occurs prior to said first closing time;

and

adding a first overtime interval to said first closing time.

94. The machine-readable medium of claim 92, further comprising:

setting a third closing time for a third lot;

determining whether to extend said third closing time based on said extended second

closing time; and

extending said third closing time in accordance with said determination.

95. A method of controlling closing times in an electronic auction between an originator and a plurality of bidders, comprising:

offering at least two lots to the plurality of potential bidders;

setting a first closing time for a first lot and second closing time for a second lot, wherein said second closing time is later than said first closing time;

receiving bids from bidders for said first lot;

extending said first closing time by an incremental amount of time upon the occurrence of an lot-extending event; and

extending said second closing time if said extended first closing time precedes said second closing time by less than a predefined time interval;

wherein the originator and each bidder are coupled electronically over a communications network during the auction.

- 96. The method of claim 95, wherein said lot-extending event is receiving a bid that is better than the best of the previously received bids.
- 97. The method of claim 95, wherein said lot-extending event is receiving a bid that is within a predetermined amount of a preceding bid.
- 98. The method of claim 95, wherein said lot-extending event is receiving a bid within a predefined interval of said first closing time.
- 99. A method of displaying updated lot closing times in an electronic auction, wherein said auction consists of at least two lots, comprising:

displaying information about a first lot and a second lot, said information including a first closing time for the first lot, and a second closing time for the second lot, wherein said second closing time is later than said first closing time;

submitting a bid for said first lot within a first predefined time interval of said first closing time; and

displaying an updated first closing time, wherein the updated first closing time is determined by extending the first closing time by first time extension increment; and

if said updated first closing time is less than a second predefined time interval of said second closing time, displaying an updated second closing time, wherein the updated second closing time is determined by extending the second closing time by a second time extension increment.

- 100. The method of claim 99, wherein the bid submitted is better than the best of any bid previously submitted.
- 101. The method of claim 99, wherein the bid submitted is within a predetermined amount of a previously submitted bid.
- 102. The method of claim 99, wherein the bid submitted is within a predetermined rank of a previously submitted bid.
- 103. The method of claim 99, wherein the bid submitted is within a predetermined percentage of a previously submitted bid.
- 104. A computer-readable medium whose contents cause a computer system to display updated lot closing times in an electronic auction, wherein said auction consists of at least two lots, wherein said auction consists of at least two lots, comprising:

displaying information about a first lot and a second lot, said information including a first closing time for the first lot, and a second closing time for the second lot, wherein said second closing time is later than said first closing time;

submitting a bid for said first lot within a first predefined time interval of said first closing time; and

displaying an updated first closing time, wherein the updated first closing time is determined by extending the first closing time by first time extension increment; and

if said updated first closing time is less than a second predefined time interval of said second closing time, displaying an updated second closing time, wherein the updated second closing time is determined by extending the second closing time by a second time extension increment.

- 105. The computer-readable medium of claim 104, wherein the bid submitted is better than the best of any bid previously submitted.
- 106. The computer-readable medium of claim 104, wherein the bid submitted is within a predetermined amount of a previously submitted bid.
- 107. The computer-readable medium of claim 104, wherein the bid submitted is within a predetermined rank of a previously submitted bid.
- 108. The computer-readable medium of claim 104, wherein the bid submitted is within a predetermined percentage of a previously submitted bid.

109. A method of maintaining a minimum time interval between lot closing times in a multilot electronic auction between an originator and a plurality of bidders, comprising:

offering at least two lots to the plurality of potential bidders, wherein each lot has a predefined closing time and each lot closing time is different;

receiving bids from bidders for a lot;

extending the closing time of the lot by an incremental amount of time upon the occurrence of an overtime trigger; and

if the difference in time between the extended closing time precedes the closing time of the subsequent lot by less than the minimum time interval, extending the closing time of the subsequent lot by an incremental amount of time;

wherein the originator and the bidders are coupled electronically over a communications network during the electronic auction.

- 110. The method of claim 109, wherein the overtime trigger is at least one of a group comprising receiving a bid with a ranking criterion, receiving a bid with a quality criterion and receiving bids having a bid group characteristic.
- 111. The method of claim 110, wherein said ranking criterion is at least one of a group comprising a best bid and a predetermined rank from said best bid.
- 112. The method of claim 110, wherein said quality criterion is at least one of a group comprising an absolute bid price, a bid price within a predetermined absolute difference from a

best bid price, a bid price within a predetermined percentage difference from said best bid, and a bid from an incumbent bidder.

- 113. The method of claim 110, wherein said bid group characteristic comprises at least one of a group comprising an increase in frequency of bids, a statistical analysis of bid prices from a group of bidders and a statistical analysis of bid prices received from one bidder.
- 114. The method of claim 109, wherein said minimum time interval is at least five minutes.
- 115. A computer-readable medium for maintaining a minimum interval between lot closing times in a multi-lot electronic auction between an originator and a plurality of bidders, wherein the originator and each bidder are coupled electronically over a communications network, comprising:

offering at least two lots to the plurality of potential bidders, wherein each lot has a predefined closing time and each lot closing time is different;

receiving bids from bidders for a lot;

extending the closing time of the lot by an incremental amount of time upon the occurrence of an overtime trigger; and

if the difference in time between the extended closing time precedes the closing time of the subsequent lot by less than the minimum time interval, extending the closing time of the subsequent lot by an incremental amount of time;

wherein the originator and the bidders are coupled electronically over a communications network during the electronic auction.

116. The computer-readable medium of claim 115, wherein the overtime trigger is at least one of a group comprising receiving a bid with a ranking criterion, receiving a bid with a quality criterion and receiving bids having a bid group characteristic.

- 117. The computer-readable medium of claim 116, wherein said ranking criterion is at least one of a group comprising a best bid and a predetermined rank from said best bid.
- 118. The computer-readable medium of claim 116, wherein said quality criterion is at least one of a group comprising an absolute bid price, a bid price within a predetermined absolute difference from a best bid price, a bid price within a predetermined percentage difference from said best bid, and a bid from an incumbent bidder.
- 119. The computer-readable medium of claim 116, wherein said bid group characteristic comprises at least one of a group comprising an increase in frequency of bids, a statistical analysis of bid prices from a group of bidders and a statistical analysis of bid prices received from one bidder.
- 120. The computer-readable medium of claim 115, wherein said minimum time interval is at least five minutes.

121. A bidding device operated by a bidder during a multi-lot auction, said bidding device comprising software that enables the bidder to submit bids to an online auction;

wherein said bidding device displays information about a first and second lot, said information including a first closing time for the first lot, and a second closing time for the second lot, and said second closing time is later than said first closing time;

wherein if said bidder submits a bid for the first lot within a predefined time interval before said first closing time, said bidding device displays an updated first closing time that is determined by extending the first closing time by a first time extension increment; and

wherein if said extended first closing time is less than a second predefined time interval of said second closing time, said bidding device displays an updated second closing time that is determined by extending the second closing time by a second time extension increment.

- 122. The bidding device of claim 121, wherein said submitted bid is better than the best of any bid previously submitted.
- 123. The bidding devie of claim 121, wherein said submitted bid is within a predetermined amount of a previously submitted bid.
- 124. The bidding device of claim 121, wherein said submitted bid is within a predetermined rank of a previously submitted bid.
- 125. The bidding device of claim 121, wherein said submitted bid is within a predetermined percentage of a previously submitted bid.

- 126. A method of maintaining a predefined minimum time interval between the closing time of lots in an electronic auction, wherein the closing time of a current lot is preceded by the closing time of a preceding lot, and the closing time of the current lot precedes the closing time of a subsequent lot, comprising:
- (a) determining if the difference of the closing time of the current lot and the closing time of the preceding lot is less than a first predefined time interval;
- (b) if the difference is less than a predefined time interval, setting the closing time of the current lot to the closing time of the preceding lot plus the predefined minimum time interval; and
- (c) if the difference of the extended closing time of the current lot and the closing time of the subsequent lot is less than a second predefined time interval, setting the closing time of the subsequent lot to the closing time of the current lot plus the predefined minimum time interval.
- 127. A method of maintaining a predefined minimum time interval between the closing time of lots in an electronic auction, wherein the closing time of a current lot is preceded by the closing time of a preceding lot, and the closing time of the current lot precedes the closing time of a subsequent lot, comprising:
- (a) determining if the difference of the closing time of the current lot and the closing time of the preceding lot is less than a first predefined time interval; and
- (b) if the difference is less than the first predefined time interval, setting the closing time of the current lot to the closing time of the preceding lot plus the predefined minimum time interval; and for each subsequent lot:

(i) setting the subsequent lot to be the current lot; and repeating steps (a)-(b) until there are no more subsequent lots.

## **REMARKS**

This Preliminary Amendment is filed in a Continuation application filed concurrently herewith under the Continuation Application procedure of 37 CFR § 1.53(b) of prior application, Application No. 09/252,790. By this Preliminary Amendment, Applicants have cancelled claims 1-88, and added claims 89-127. Accordingly, claims 89-127 are presently under consideration.

# **Summary of the Final Office Action**

In the Final Office Action dated September 12, 2000 (Paper 14), claims 105, 106, 116-118 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,835,896 to Fisher et al. (*Fisher*), and further in view of Sairamesh et al. ("Economic Framework for Pricing and Charging Digital Libraries", D-Lib Magazine, February, 1996) (*Sairamesh*).

By this Amendment, Applicants have added previously cancelled claims 105, 106, 116-118 as new claims 89-94. With respect to the rejection of claims 89-94, Applicants respectfully traverse the rejections for the following reasons.

Claims 89-94 represent patentable subject matter because the cited prior art fails to teach or suggest the present invention as claimed. The Final Office asserts that Claim 89 (previous claim 105), is taught by the "Floating Closing Time" feature of the *Fisher* reference. The Office Action asserts that *Fisher* inherently teaches setting a "first closing time" and a "second closing time", and that the closing time of the second lot is affected by the "Floating Closing Time" feature. When this feature, as disclosed in *Fisher* at Col. 13, lines 30-54, is used, "the auction for a particular item is automatically closed if no new bids are received within a predetermined time

interval." This feature "forces the bidding activity to occur within a shorter amount of time", and "bidders have an incentive to stay active in the bidding process to avoid closure of an item before maximum bids have been entered." By using this feature, "the bidding period is not protracted to an artificial length."

However, *Fisher* is inapplicable because it attempts to solve a completely different problem than the present invention. In *Fisher*, the auctioneer seeks to hold multiple auctions in a set period of time, and seeks to shorten the amount of time needed to conduct each auction in order to maximize the number of auctions that can be held in that set period of time. *Fisher* discloses a solution that terminates an auction *earlier* than the scheduled closing time, and adjusts the subsequent closing time *forward*, allowing auctions to be completed in a shorter period of time. *Fisher* teaches using decision rules to accelerate the closing of an auction. For example, one rule disclosed by *Fisher* is to terminate an auction if a bid has not been received for a certain amount of time, and amend the closing times for subsequent auctions forward. *Fisher* is creating incentives for bidders to bid early and actively, and the auction in *Fisher* accelerates based on lack of activity.

The present invention seeks to solve the completely opposite problem. Auctions in the present invention are not terminated early, and subsequent auctions are not rescheduled to close earlier than originally scheduled. The Flexible Overtime feature of the present invention does not provide any incentives for bidders to bid early and actively, but rather it allows them to defer bidding until near the closing time, then extend if the auction dynamics call for it. In contrast, the time period for conducting the auction with multiple lots is not set, but rather can be flexibly extended. The present invention accelerates based on activity, not *lack* of activity. As the present Specification teaches at Page 12, lines 9-12, "bidding activity tends to increase close to the scheduled closing time ... it is possible to achieve a better auction price if the auction is allowed to continue if bids are still being made."

As the Office Action correctly notes, *Fisher* fails to disclose that the "Floating Closing Time" feature may also be applicable to *extending* the closing times. In fact, *Fisher* teaches away from extending the closing time of an auction at Col. 13, lines 40-42, "bidders have an incentive to stay active in the bidding process to avoid closing of an item before maximum ... bids have been entered." At Col. 13, line 44-46, *Fisher* teaches that "the bidding period is not protracted to an artificial length as is the case when an item closes at a preset date and time."

The Office Action relies on Sairamesh to teach different opening and closing times on a certain day to suggest that the time intervals could be extended. The Office Action asserts that Sairamesh teaches that prices and services are offered for "all the time-intervals" comprising different opening times and closing times of a certain date to suggest that the time intervals could be extended.

However, when Sairamesh refers to "time intervals", it refers to fixed time intervals such as the specific interval from 4:00 pm to 5:00 pm. Sairamesh refers to these fixed time intervals as being the time period over which prices are being offered in the marketplace to accommodate peak-time pricing. In Sairamesh, the "time intervals" are features of the products or services being purchased.

Sairamesh teaches having different scheduled times to hold auctions. The article describes that suppliers have different scheduled negotiation times, for example, one supplier might have a 6:00 am to 4:00 pm negotiation time and another supplier might have a 6:00 am to 5:00 pm negotiation time. These times are pre-specified based on the buyer.

Neither of these uses of "time interval" corresponds to the present use of "time interval." The present invention uses the term "time interval" specifically within the context of the auction operation to mean the amount of time to extend the closing time of a lot. The "time interval" of the present invention is not a feature of the product begin purchased.

To illustrate, using the example in *Sairamesh*, consider the case of two auctions, one scheduled to close at 4:00 pm and the second at 5:00 pm. (*Sairamesh*, page 5) Assume that it is

now 3:59, and the first auction is about to close. The present invention teaches determining whether an overtime condition trigger has occurred in the first auction. If such a trigger has occurred, (for example, a new low bid is received) the system of the present invention would amend the closing time of the first auction to 4:01, where 4:00 is the "first closing time" and the "first overtime interval" is one minute. *Sairamesh* does not teach changing the closing time of the first auction by a time interval.

Neither Fisher nor Sairamesh teach extending an auction by an overtime interval.

As stated in MPEP 2143.02, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Therefore, Applicants respectfully submit that the combination of *Fisher* and *Sairamesh* do not render the present invention obvious.

Moreover, claims 89-94 represent patentable subject matter because there is no teaching, suggestion or motivation to combine *Fisher* with *Sairamesh*. (MPEP, Section 2143.01). *Fisher* mentions the use of a "Floating Closing Time", but only in the context accelerating the closing of auctions, and actually teaches away from extending auctions. *Sairamesh* teaches having different closing time for different auctions, but does not disclose any method of extending the closing times based on auction activity, but merely teaches a tiered pricing model based on intervals throughout the day. The closing times in *Sairamesh* are predetermined and do not change during the auctioning activity. Thus, the person of ordinary skill in the art would have no motivation to extend an auction by a time interval from these references.

For at least the above reasons, it is believed that claims 89-94 represent patentable subject matter over the cited prior art, either alone or in combination. Removal of the rejections with respect to claims 89-94 is therefore respectfully requested.

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## Conclusion

Applicants respectfully request the Examiner's reconsideration and reexamination of the application and timely allowance of the pending claims.

The Examiner is invited to contact the undersigned at 202-467-7053 to discuss any matter concerning this application.

Respectfully submitted,

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Dated: April 11, 2000

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